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COVER: One of the most handsome, streamlined, and graceful of all waterfowl, the pintail is a welcome fall and winter sojourner on Virginia's waterways and marshes. Our artist: Duane Raver, Cary, North Carolina.

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GUEST EDITORIAL

Game Management Faces Constant Threat

By JOHN MARSMAN
Savage Arms Manufacturing Company

KNOWINGLY or unknowingly, sportsmen pose one of the most serious threats to efficient management of fish and game programs today. It takes the form of political pressure based on selfishness, short sightedness, oftentimes pure vengeance. It includes the age-old conflict between the armchair hunting and fishing expert and the trained biologist who is paid to manage his programs.

Examples of this type of political interference can be found in many states. Professional conservation men dedicated to their careers are being pressured out of jobs for which they are highly qualified and the sportsman is losing out in the shuffle.

Trained personnel serving the fish and game cause today have not been attracted to their careers by high salaries. Neither is there any glory attached to the work they have chosen. On the contrary, whenever a sportsman decides to speak up it is usually to air a complaint rather than offer a compliment.

Perhaps if sportsmen paused a moment to reflect on the matter they would not be so quick to block or harass changes in fish and game policies through political interference. Game management changes usually are not proposed for the benefit of a minority group but are aimed at improving the lot of all sportsmen while protecting the natural resource sportsmen depend on for pleasure.

Therein lies the chief difference between the trained fish and game managers and the license holder who views his 30 years of experience in the field as the sole criterion for being an authority. The former considers the total spectrum of fish and game problems in his state and makes decisions accordingly. The latter is concerned chiefly with his own personal hunting and fishing pleasure which he seems to evaluate only in terms of bag and creel limits.

This is not to say that fish and game administrators should enjoy autonomy and be responsible to no one. A check valve has to be installed somewhere, and sportsmen have functioned quite effectively in this role in many areas of the country.

It is equally important that fish and game administrators be allowed maximum freedom to manage their programs on the basis of education, experience and scientific data. Political pressure created by minority groups of sportsmen will not result in proper game management programs.

This nation is in dire need of qualified men dedicated to the sound management of our natural resources. Many have been lost by the wayside because sportsmen, with limited vision and ulterior motives, instigated enough political influence to force them out. Many more will be sacrificed in years to come.

From *Arkansas Game and Fish*, courtesy Arkansas Game and Fish Commission

LETTERS

Trapped Doe

HERE is a picture I took in September near Franklin, Virginia.

Apparently while trying to jump over a road-side fence, the doe became entangled between the barbed wire and the lower fence and died struggling to free herself.

Joe C. Martone, D.D.S.
Norfolk

Defends Woodpeckers

I have recently been informed that the light company hires a man to shoot woodpeckers pecking holes in poles.

Since they are after worms and really are marvelous tree surgeons, helpful more than harmful as I understand it, perhaps you could publish something in your magazine concerning their value.

Mrs. Sue L. Burton
Melfa

The woodpeckers generally are beneficial species that deserve protection, but individual members of the clan certainly can become a nuisance when they insist on hollowing out valuable poles or making entrance holes under the eaves of houses. They are protected by both federal and state law, and even when they are doing damage a federal permit must be obtained before they may be legally destroyed. When such a federal permit is obtained it normally is honored by state enforcement officers.—Ed.

The Name of the Thing

IN the June 1969 issue of *Virginia Wildlife*, Mrs. Masselin gives a recipe for *Partan Bree*, a Scottish crab chowder. She need have no doubts about her spelling; *partan* is the preferred form, though you might also see *parton*, *partain*, or other variations. Her guess that *partan bree* means *'Pot of Broth'* is only half right, however. *Bree* is the Scots' word for 'soup' or 'broth' or even 'chowder', but *partan* has little to do with pots until it becomes a *partan bree*. *Partan* is simply the Scots' word for 'crab', so *partan bree* means 'crab chowder'.

Mrs. Masselin's article is so good humored that I am sure being publicly corrected will not make her look *partan-avised* (crab-faced), though I know that magazine editors are a *partan-hunded* lot (tight fisted, like a crab) so I shall not expect payment for this letter, even if it is published.

J. C. Thompson
Arlington

In the Long-Ago Time of That First Christmas Day, Little was Known of the Universal Truth Which Shone in the Single Message of the

Star In The East

By WILBERT NATHAN SAVAGE

ALTHOUGH the Prince of Peace now had grown to manhood, recognition of His divine stature was not yet; and celebration of His birth remained unheard-of. Indeed, it was such a far-away festival that centuries would have to pass before the Heritage of the Manger could reach man's discernment and become a radiant manifestation of the world's most profound Season of Joy—an illuminating guide to hope and eternal values; to inspiration and dedication; to good will and good wishes; to faith and courage; and the right amount of solemnity blended with a generous measure of wholesome merriment.

Actually, more than a quarter of a century had elapsed since the birth of the Christmas Infant. Now, having long ago left His birthplace and gone northward with Joseph and His Mother, He often could be observed working long hours as a carpenter in the peaceful village of Nazareth. But there was an infinitely more significant facet of His life; he had earned reverence as a teacher and a leader. He mingled freely with the lowly and the troubled and the sick; with tillers of the soil; and with fishermen by the seaside, even to the point of offering rewarding advice to "put out into deep water and let down your nets. . . ."

Interestingly enough, some of the truly great artistry of the world includes scenes of Christ associating with fishermen—Simon, John, James, Andrew, etc. Example: the engraving on ivory depicting the Master blessing St. Andrew and St. Peter in their boat—the latter dressed in his fisher's coat and dragging in the net. Then there is the famous work of Raphael, showing Christ sitting in the stern of a boat, which is sinking almost to its gunwale with the load of fish. St. Peter is on his knees in the midst of the draught (catch), and St. Andrew stands with arms outspread in astonishment.

From *Pennsylvania Angler*, courtesy Pennsylvania Fish Commission.

On another boat Zebedee and his two sons, James and John, are toiling at the nets. Three large cranes are enjoying their share of the fish, . . . "quite heedless of all the stir."

Apart from the actual pictorial appearance of the Christmas Figure in fishing-related artwork, we find numerous instances of the early Christian using symbols in various etchings that featured the anchor, boat, net, etc. Singularly, yet fittingly perhaps, lamps used in the lighting of the earliest Christmas festivities (4th century A.D.) sometimes bore the hand-embossed representation of such scenes as a fisherman drawing a single fish from his net; or the likeness of a fish on a platter. Still another instance of rare crafts-

manship is present in the fine crypt sculpturing of a fish and a basket of bread—inspired, very probably, by the loaves-and-fishes miracle (St. Matthew 15 to 21).

Not well known is the fact that originally the symbol of the One who gave us Christmas was not a lamb, but a fish, and the symbolic use continued through the first four centuries.* As an emblem of Christianity the fish immediately involved reference to baptism. Christ spoke of the draw-net full of fish good and bad; and the earliest known hymn included these lines:

"Fisher of men, the Blest,
Out of the world's unrest . . .
With choicest fish good store
Drawing the net to shore."

When Christ was widely regarded as the Divine Fisherman, His followers themselves were spoken of as *pisciculi*—"little fishes." Many old baptismal fonts utilized engravings that exhibited three fish arranged in a circle or a triangle. Bronze and glass fishes have been found in the Holy Land by archaeologists; and even precious gems bore fish and dove designs that represented the victorious soul. One of these is today in the British Museum.

The likeness of the carp was perhaps used more in symbolic Christian artistry than any other species of fish; and in related art, the anchor was an emblem of the security of faith, while the ship stood for a temple of worship. The fine sculpturing of the Eucharistic Fish is represented in the crypt of St. Cornelius, and an actual hook-and-line fishing scene—involving a lone fisherman landing a large fish—is in the catacombs of St. Callistus. Even some of the gates of old featured fish outlines in bas-relief, and one well-known sarcophagus ornament shows a fishing scene that is yielding not only fish, but crabs as well.

The Sea of Galilee was the site of most of the Bible accounts of fishing, and of Christ's direct association with fishermen. During the life of the Master Fisherman, the glory of the Greco-Roman cities stretched in a dazzling circle around the shores of the sea. Rich and splendid they were, with the majestic snow-capped summit of Mt. Hermon towering above all else. The deep blue water and pebbly shores; the soft outline of lesser mountains; gentle breezes, lapping wavelets and grassy coves—all these things help one to picture the long-ago setting when the multitude eagerly listened to "the Anointed One" as He told them meaningful and deep stories about their everyday farming and fishing.

As the Bible indicates, fishermen did not always find the Sea of Galilee calm and peaceful. To this day, storms can come up with great rapidity, and a band of rough water may rush from one side of the sea to the other in a deceivingly short time. The wind may roar, and the breakers foam, but in a mere 15 minutes tranquility can be restored and the waters become mirror-smooth.

The sea is very deep, and reported soundings range from two to a rather improbable seven hundred feet. The water is fresh and clear, abounding in fish of many varieties, some of which are found nowhere else outside the tropics. It is believed that, until recent times, the local fishing regulations dated back to the time of Joshua! In early times, pickled fish of Galilee were widely marketed, and after the celebration of Christmas had begun, fish were on the festive board as often as fowl!

What is the Palestinian countryside like round about?—this remarkable land that echoed the "tidings of great joy that shall be to all the world. For this day is born to you a Savior. . . ." Example: have you ever wondered whether snow ever falls in the Holy Land? Yes indeed, a white Christmas is quite possible in certain areas—and this despite the fact that fruits of the tropics grow in some portions of the country and high temperature readings have hit 135° in such communities as Jericho! Yet the Star of the East might very well have glistened from afar on snow drifts and wintry lake ice, for snow storms are not uncommon in Jerusalem, drifts have lain knee-deep at the Jaffa Gate, and eight-foot snow drifts are not uncommon in Lebanon!

Indeed, on this topic of Holy Land climate, L. G. Leary, in his THE REAL PALESTINE OF TODAY, states: "The

usual painting of the Nativity clothes the bystanders far too lightly for a Judean December! for the traveler who visits Palestine in mid-winter finds that his heaviest topcoat is none too warm!"

Today, neither the seasonal holiday rush, nor the turbulence of the Palestine atmosphere, nor the world's varying moods, have affected the triumphant message proffered in the long-ago coming of the King of Kings. For in the stellar wisdom of the Christmas Truth, the humble birth of the One who delighted in a chat with a vineyard worker, a dusty countryman, the shepherd of a flock, an ordinary fisherman—it is He, alone, who has aroused a steadfast awareness of Bethlehem, and a Holiday Spirit that rings with genuineness supreme!

*From THE LIFE OF CHRIST, AS REPRESENTED IN ART, by Frederic W. Farrar, D.D., F.R.S.

OPPORTUNITY: It's All Yours Don't Miss It

WITH pent up longings released, the great anticipations and urgencies of opening day and a long Thanksgiving week end behind him the huntsman can settle down in December to enjoy to the fullest the long leisurely season of outdoor sport that remains.

Hunting has been a fall and winter tradition in Virginia since an English colony was first established on these shores. The fact that more people than ever before are able to enjoy the opportunity to hunt in Virginia today is proof of the wondrous resilience and productivity of the wildlife resources with which our land is blessed. It is also a testimonial to the soundness and success of a positive program designed to conserve and manage the state's wildlife re-resources, and to farsighted plans laid many years ago to provide generous amounts of public land on which wildlife would always be available to people to enjoy.

The status of important game species and the outlook for their future were not always as bright as they are today. Older hunters can recall the days when deer herds had been reduced to a few isolated remnants and when the wild turkey had disappeared entirely from all but a small fraction of Virginia's forests. Few people could have dreamed that management could restore the deer herds and turkey flocks to their present abundance, and extend their ranges again to vast areas from which they had been absent for a generation.

Today deer are found and hunted everywhere in the state except in the most urban areas, and are so abundant in many localities that hunting regulations have to be designed with an eye to controlling the herds rather than merely protecting them. Wild turkeys are more intolerant of disturbance by man's activities than are deer, and are therefore less widely distributed, but nevertheless from a population once almost entirely confined to the central Piedmont region the turkey has been restored and is flourishing throughout most of the wilder forested areas of the western part of the state.

First efforts at managing Virginia's wildlife resources were aimed primarily at protecting game species from too much hunting. But while excessive hunting undoubtedly did play a part in the 19th century decline in game populations, it was abuse of the land and destruction of wildlife habitat that really made the decline inevitable, and it was this abuse of the land and destruction of wildlife habitat that had to be corrected before protection could play a positive role in reversing the downward trend in wildlife abundance. Bringing sound forestry practices to Virginia's exploited timberlands and watersheds, and restoring soil conserving cover to overworked and eroding cleared lands, set the stage. With habitat thus partially restored, techniques could be developed for manipulating the habitat to increase its carrying capacity for such species as deer, turkeys, grouse and squirrels in the forests, rabbits and quail in the open lands. With habitat thus improved, native breeding stock could produce a sustained annual surplus for hunters to harvest. Live trapping and transplanting of wild deer and turkeys restored the breeding stock to the vast areas from which it had disappeared, and which were now ready for its return. Today hunting regulations are formulated and enforced not to prolong the inevitable decline of a diminishing resource, but to produce the maximum sustained yield of annual crops of wild game for recreational use, to control wildlife populations and keep them in balance with the carrying capacity of their range, and to insure people who want to enjoy them as equal an opportunity as possible to do so.

Modern wildlife management techniques have brought the whitetail deer in Virginia from near extinction to near record abundance.

Photo by Leonard Lee Rue III

L. L. Rue photo

Much of eastern Virginia is no longer suitable for the wild turkey, but in many of our less populous counties the bird has extended its range and increased its numbers spectacularly.

With the steady growth in numbers of people and corresponding growth in demand for outdoor recreation, and with this growth centered largely in urban areas, the wildlife manager's problem has expanded to include not only the welfare of wildlife populations but also the provision of public lands on which people can find access to wildlife and related outdoor recreational resources. Fortunately, in Virginia, finding a place to hunt even for the city dweller is not a great problem. There are about six acres of public hunting land for every licensed hunter, in addition to the many acres of privately owned lands that are open. Most of the land in the National Forests and the Piedmont State Forests in central Virginia is managed as public hunting land under cooperative agreements between the Commission of Game and Inland Fisheries and the U. S. Forest Service and the Virginia Division of Forestry. In recent years the forest products industry has become increasingly aware of the demand for outdoor recreational opportunities, and a dozen progressive corporate owners of large commercial forests have made available some 700,000 acres of their timber lands for public hunting.

The Game Commission's own system of Wildlife Management Areas stretches across the state from the Eastern Shore to the mountains on the western borders, and provides public hunting for marsh birds and waterfowl, and small and big upland game species. Some of the areas near population centers are hunted heavily, but those which are more remote receive little pressure after the first week of each season and offer ample space for uncrowded hunting in a near wilderness setting at this time of year. Many of these areas are relatively unknown except to local residents, and since they lie in areas of low human populations they are most attractive to sportsmen who want to go on a December or January hunt where they will have a feeling of having lots of space all to themselves. Here is a brief description of the most important upland Wildlife Management Areas.

Rapidan Wildlife Management Area. This 8,000 acre area in Madison and Greene Counties is composed of four separate tracts adjoining the Shenandoah National Park. The South River tract is located on the South River about 3 miles west of Kinderhook. The Middle River tract, largest of the four, is north and east of Fletcher, and west of Graves Mill. The Rapidan River section is located northwest of Criglersville, and the smaller Syria tract is about 3 miles northwest of Syria. The main access to the area is via route 615 from Graves Mill and Old Hoover Road from Criglersville.

Bear are plentiful on the area. Squirrels and grouse are the most popular small game species. Deer are not plentiful, and the area is closed to fall turkey hunting.

Wunder Wildlife Management Area. The three tracts consisting of 1,300 acres are a few miles west of Broadway, Rockingham County, between Little North and Supin Lick Mountains, and the area is reached easily via highways 259 and 612. Some of the area is adjacent to George Washington National Forest land which also is open to hunting. Although it is fairly close to civilization the land is wild and isolated. There are grouse, turkeys and deer on the area, and many local hunters consider the squirrel hunting the best in that part of the state.

Goshen-Little North Mountain Wildlife Management Area. This long and narrow 32,000 acre area has its northern tip at Buffalo Gap just seven miles west of Staunton on route 254, and its southern extremity crosses route 60 about halfway between Lexington and Clifton Forge. Scenic and historic Goshen Pass lies between the Goshen and Little North Mountain units. This area, particularly the southern Goshen unit, is utilized very little by sportsmen, probably because of its remote location and rugged terrain. It has produced two state trophy deer heads and the heaviest yearling bucks checked west of the Blue Ridge. The deer are as plentiful here as on any public hunting area of comparable size in the western part of the state, but they are hard to hunt in the laurel thickets and are well able to take care of themselves. Much of the more remote parts of the area remain undisturbed by hunters throughout the whole year. Turkeys are the second most important game species present, while squirrels, grouse and bear also offer good hunting prospects.

Highland Wildlife Management Area. Here there are nearly 18,000 acres in four separate tracts. The smallest and most northern Crab Run tract now has comparatively low game populations, but the Sounding Knob tract atop Jack Mountain probably has the best game populations in the county. Its terrain is rugged but there are open areas covered with bluegrass sod which are kept open by grazing cattle under lease agreements in the summer. Bullpasture Mountain tract adjoins portions of the Bullpasture and Cowpasture rivers, and offers good turkey and deer populations, while Benson Run tract adjoining National Forest land on three sides is the home of the black bear, grouse, and an occasional beaver colony.

Gathright Wildlife Management Area. Lying in Bath and Alleghany Counties, this is the most famous and first major area acquired under the Game Commission's program of purchasing and developing lands for public hunting. The 18,000 acre tract includes a 14 mile scenic stretch of the Jackson River flowing through rich bottomlands (scheduled eventually for flooding by the Gathright Dam project) with steep ridges on each side. Hunting pressure drops off sharply after the close of the western deer season, although the area offers excellent small game hunting. There are good populations of squirrels and grouse, and fair numbers of quail

(Continued on page 22)

BIG BLACK BRUINS

Text and Photos

By CALVIN A. DEVINEY
Miami

ACCORDING to the latest big game census in 1963 by the U. S. Fish and Wildlife Service, there are probably more than 250,000 black bears in the United States and about twice that number scattered throughout the vast forest regions of Canada.

Man and bear have been competitors since prehistoric times. This is evidenced by the many drawings on cave walls by our ancestors which show their struggles with the great beasts in a fight for survival, and food. The bear was the loser as weapons improved and civilization pushed onward; the bear retreated as man advanced. Small homesteads and villages of yesteryear gradually increased in size to become the larger towns and cities of today. The bear accepted the inevitable and retreated with the wilderness.

Bears in earlier days were a far more dangerous animal to man than they are today. Much of their boldness has disappeared now that man is armed with guns instead of clubs, spears, or the bow and arrows of the primitive hunters. The bear is still a dangerous and formidable adversary though, and the man/beast feud continues if he leaves the forest, as well as in hunting season.

In several instances where he has strayed or been driven into a town, the entire populace has piled out with their guns and dogs to destroy the beast that threatens their home and families. The cave day feud of man against bear still continues.

Scientifically speaking, *Ursus americanus* or the black bear is not always black. Some parts of America find him with color throwbacks that are due to an Asian blood infusion via the Bering Straits. Though he may be shades of brown, cinnamon, rusty, or pale gray to a Maltese blue in some of the western sections of the U.S., these color phases have not spread throughout the east section of the country yet, and in the eastern states, the color is black. Even with the different color shades and variations, the black bear's face is always brown and usually there is a small white patch of hair on his breast.

Although there are also some variances in size, the adult black bear will usually be five to six feet in length with head and body, and two to three feet high at the shoulder. His average weight will run from two to four hundred pounds, but five hundred pounds is not too uncommon and they do get larger.

Blackie belongs to the order of Carnivora or the flesh-eaters. These are the mammals that are primarily meat-eaters. In the family of bears, Ursidae, live the largest living flesheaters. This family also includes the grizzly, big brown bear, and the polar bears.

Although a meateater primarily, the black bear is considered omnivorous, meaning he eats both animal and vegetable food. Their skull and teeth differ from other carnivores. The teeth have a general resemblance to those of dogs, but the broad, flat molars are better adapted to grinding than to cutting, and the flesh teeth are more massive and blunt.

Bears are massive, clumsy beasts with their limbs thick, heavy, and strongly clawed. Despite his fondness for meat, he subsists laregly on vegetable fare because he is usually physically incapable of getting enough meat.

The bear will eat most anything edible, plant or animal, which he encounters in his food foraging trips. A partial list of animal matter he eats are ants, all types of wild and domestic honey bees, yellow jackets, wasps, grubs, beetles, walking sticks, eggs, mice, lizards, snakes, fish, and an occasional wild hog.

Carrion is an important source of meat to the bear. When a carcass is found, he's likely to scrape a shallow pit and half-bury, half-cover it for future meals.

A hunter's dressed-out deer will sometimes be given special attention if hung out overnight, as will a string of fish that is left too available and the bear's hunger for meat overcomes his dislike and fear of the human smell.

Occasionally he'll develop a taste for farmers' calves, sheep, or pigs and cause extensive damage to livestock before he can be caught or killed. His prey in these larger sizes are killed with sweeps of his tearing claws and mighty forearms, not by hugging as is often thought.

He's an industrious hunter of small mammals such as mice and chipmunks, and manages to dig out a good many of these animals from day to day. If digging out these little creatures seems like small business for big bears, even more ridiculous are the insects that form an important part of his diet. The ones he seeks the most are found in colonies or have nests stored with luscious grubs or honey. One of bruin's favorite summer occupations is tearing rotten logs and stumps to pieces in search of fat larvae, and digging out ants and bees from their nests in the ground or tree trunks.

A farmer's honey hive or a wild swarm's honey store hold a temptation for him he can't resist. As the enraged bees swarm over the marauder, creeping into his coat, ears, eyes and mouth, stinging him until he rolls on the ground in a fury of pain, he daubs his eyes and ears with dirt and honey as he tries to brush off his tormentors; but his appetite and greed outlasts his distress, and he keeps at it until, gorged and smeared with honey, he stumbles off to some retreat where he can sleepily but delightedly lick off his wounds and fur, and digest his meal.

On the vegetable side of his diet, blackberries, blueberries, roots, grass, tender shoots, fruits, and acorn mast or other nuts all feed his insatiable appetite as do so many more kinds and varieties of the vegetable world.

The bears require an extensive range to furnish the adequate supply they require. Normally a bear's home range will cover a fifteen-mile radius in which he will frequent the areas more often where his hunting is most productive in his food requirements. The bear population of any area is small compared to the population of most other animals. Though they roam a wide area daily they are adept at keeping out of sight, and people may live for years in bear country without catching sight of one.

A single bear may leave enough "sign" to give the impression that the "woods are full of bear." Overturned logs and stones, stumps torn to pieces, bushes trampled down, limbs torn off low trees, and earth scattered about may merely indicate that one hungry bear has been trying to satisfy his appetite.

The black bear doesn't have many enemies other than man. Strangely enough, there is a much larger bear mortality rate due to porcupines than most people think. The porky's quills become deeply imbedded in the mouth and tongue, they fester and hurt, and pronounced swelling may bring about a slow death from starvation. Other quills may work their way through the roof of his mouth, penetrating the brain and bringing a quicker, more merciful death.

Bears are not sharp-sighted, but make up for their bad vision with a keen sense of smell and acute hearing. Usually the chance meeting of a bear and a hunter occurs when the hunter is standing still and the bear is moving downwind to him. Nomally a timid beast today with humans, with a fear of their guns, this is one of the times he'll demonstrate how fast he can move for a short distance. Some have estimated his flat-footed, shuffling gait at up to forty miles an hour, but only for a short way. Even when on a meat diet, he prefers a short rush from ambush to a prolonged run.

Bears are rather solitary animals. The males wander their

Except for females with cubs, bears tend to be rather solitary animals and the bear population of any area is likely to be small compared to the normal population of most other animals.

range alone. Except for a female with cubs, it is unusual to see more than one bear at a time. There are exceptions to this, of course, such as at mating season or when food is scarce and a large carcass is being devoured by several bears, or when they congregate at a garbage dump.

Bears normally mate during the late spring or early summer months, generally in June. Both male and female show a considerable amount of affection for each other during the mating season, and the male will fight fiercely for possession of his mate at this time. Both sexes begin breeding at about two years of age.

The female only breeds every other year, producing one to four cubs, with an average of two cubs per litter or one cub per year overall. In less than a month courtship is over and each bear goes his or her own way. Papa bruin is never concerned about his mate except at mating time, or his offspring at any time, though he may father several litters on the same range.

The gestation period is about seven months, with the young cubs born usually in January or February while the mother is in hibernation. She continues her sleep, right through the birth, as the cubs, toothless, blind, and almost hairless, alternately nuzzle, suckle, and sleep with her until she awakens from her hibernation.

The cubs are surprisingly small at birth, weighing about eight ounces and being eight to ten inches in length. The weight is only about 1/200 to 1/250 of the mother's weight while in comparison a human baby is 1/20, a deer fawn is 1/30, a puppy 1/25, or even a young porcupine being 1/15 of the average mother's weight. The belief among hunters that a pregnant bear has never been killed is explained by the fact that the embryos are so small that they probably wouldn't be noticed in the female's uterus.

The cubs, after the first forty days of life, have grown black, downy coats, opened their eyes, and cut their first teeth. At that time they weigh about two pounds and measure a foot in length. By the time spring arrives, these winter born cubs weigh about three to four pounds. As they emerge into the outside world from the den with their mother after her hibernation has ended, the cubs are hungry and very active as well as curious about their new world. Now with exercise and food, they will grow rapidly.

There has always been a great deal of speculation about the hibernation of bears, and accurate knowledge has been hard to get. A study of wild bears requires a lot of time and space since they range over a wide territory and are difficult to observe.

A typical den for their hibernation is hard to describe as it may vary from a hollow log or tree to a deserted cave or mine, a clump of thick underbrush, under the windfall of a fallen tree's limbs, or at the base of a tree where a hollow is formed as the roots are torn up when the tree overturns. All have been used many times as shelter from the wintry blasts and that is all the bear really requires.

The first frost in the fall will make the bear turn into a voracious eater, and he will gorge himself at every opportunity. During the spring and summer months he has had the chance to loll about in the luxury of abundant food and he has become fat and lazy. Now that he starts to feel the cold, his natural instincts prepare him for the winter's rest. As his stomach becomes gorged, he becomes sluggish. It's a mute question if he is ready to begin hibernation when he is "fed up," or when food starts to become scarce.

At any rate, late in the fall and wth the coming of winter, he seeks his den. Bears do not become torpid as a woodchuck does, but simply lie quietly, subsisting on their accumulated fat, the slow assimilation of which sustains life and enables the female to nurse her cubs when they are born during the winter's retirement period.

If the winter is unusually mild, they may leave their dens as early as February, but it is generally in the early spring when they emerge cold and hungry. Immediately their attentions are drawn to food and they begin heavy feeding to replace the fat lost during the winter's inactivity.

The bear cubs quickly learn to seek safety by climbing to the limbs of a protective tree when danger threatens. The mother is very protective of her cubs and woe befalls anything that threatens or seems to endanger her cubs. Unless an accident separates mother and cubs, they will remain together through the summer and fall, and often go into hibernation together the following winter. The young bears are among the most playful of wild animals and spend much time in satisfying their curiosities as well as in romping and wrestling with their mothers or other cubs. Usually the cubs are driven off by the mother, even by forceful slaps, when their second year has come and it's mother's time to mate again. Again, this rule can be broken and sometimes two generations of cubs can be found with one another.

Their rear feet leave a human-like imprint. The next time you see one of these tracks, examine it closely for the accompanying print of the front paw and its four or five toe imprint (sometimes one toe won't show). If you're lucky enough to see the makers of the tracks, do your observing from a distance unless you're prepared to carry on the old man/bear feud. It might not be a timid bear, but one that remembers the old days . . . or has cubs.

Let's Cook a Bear

By MARJORIE LATHAM MASSELIN
Richmond

IN the Public Library there is a book entitled *How To Cook A Wolf*. Eventually, I am sure, the mailman is going to bring me a letter asking how to do just that! Today's mail brought one asking how to cook bear, so that is what we are about to discuss. Frankly I would have done it sooner but I never thought anyone really cared!

Actually bear meat is very good, and properly handled can be quite as tender and palatable as the best cuts of beef. As with any meat, it is nice to know whether the cut you have is from a young animal or an old one. If there is any question in your mind, then take no chances with it. Treat it as though it were going to be tough and cook it with moist heat until it HAS to be fork tender. If you really don't mind chewing in order to have it rare, marinate it, use tenderizer salt, or if you have a steak beat it with a wooden mallet. Any one or combination of these treatments will help to tenderize it by breaking down the muscle structure. ALWAYS bring meat to room temperature before cooking it.

One good way to do bear meat using moist heat is to make what the German Cuisine calls Rouladen. You can do the same thing with beef or venison—even with ham. To do it, you need thin steaks cut preferably from the rump. Cut them as thin as possible—say a quarter inch thick—and then pound them with a wooden mallet to make them even thinner. Sprinkle with tenderizer salt and spread with a German or French type mustard. On each lay a green onion or two, cut lengthwise, with the green top removed. A leek, when available, works well also. Roll the meat up and secure by tying or with a skewer. Brown these in butter or olive oil. Then arrange them all side by side in a heavy pan with a tight fitting lid, pour on some red wine—dry Madiera is nice—and simmer very gently until it is all deliciously tender. Thicken the gravy, after removing the rouladen to a hot platter, with sour cream. Be sure you scrape up all the nice brown juices from the bottom of the pan, and then pour this over the rouladen. Snip a little fresh parsley over it and serve with broad egg noodles, tossed with just enough butter to keep them from sticking together, and a few poppy seeds.

A crisp salad of curly endive and/or escarole is nice and you might add a few little cherry tomatoes to it, but halve or quarter them, please; there is nothing more depressing than to find a whole tomato in one's salad.

For dessert, Bosc pears would be nice, and if you are tired of the somewhat mundane accompaniment of cheese, pass a little dish of crystallized ginger to nibble along with the fruit. It is a very pleasant change.

To do a dry roast—preferably on a spit—the bear meat should be marinated and given a dose of tenderizer salt. Jab it all over with a fork so that the salt can seep in thoroughly. Then pour over a bottle of good dry red wine, say a California Pinot Noir, and let it rest for 2-4 days, turning the meat about once every twelve hours. The marinade can be used for basting the meat as it cooks IF YOU HAVE IT ON A SPIT, OUTDOORS OVER AN OPEN FIRE. Don't baste it with liquid if you have it in the oven in a roasting pan. All *that* will do is to steam it and make it tougher than boiled owl. Any basting that is done to an oven roast should be done with clarified butter. Cook it as rare as you can bring yourself to eat it; the rarer it is, the more tender and juicy it will be. To serve, slice it quite thinly and be very careful to slice *across* the grain of the muscle fibers.

Braised leeks or braised Belgian endive, which is considerably more expensive, are equally good, as are any of the usual "winter" vegetables. Spaetzle goes as well with bear as it does with venison or if you don't want to go to the trouble of making that, a dish of scalloped potatoes with a touch of curry added to their sauce is always good. If you have done the roast in the oven and have good brown juices crusted onto the pan so that you can deglaze the pan with some of the marinade and make a nice rich gravy, a Yorkshire Pudding goes nicely.

Should you have some bear roast left over to slice and serve cold, mix some grated horseradish with sour cream. If you are on a diet, use cottage cheese, instead. Snip a few chives over the top and serve with a crusty French loaf . . . and a salad . . . and a jug of wine.

Fondue parties have become so popular that my butcher, for one at least, even advertises "Fondue Meat"; however, I doubt that many hostesses have gotten around to giving a *bear* fondue party. This is a very good way to use bear meat, as a matter of fact. The meat can be cut in cubes or in slivers, but it should be treated with tenderizer salt no matter how thick or thin you cut it. Use clarified butter for the cooking, or peanut oil. Neither will spatter at the table and both can be heated to a high enough temperature without scorching to cook the meat nicely and rapidly.

One other party dish that can be done successfully with bear meat and which will serve a multitude is a kind of modified Cassoulet. By "modified" I mean that Escoffier would turn over in his grave if he read the recipe. You can do this dish with wild boar, too. When we lived in Munich, the commanding general used to love to get his officers together for a boar hunt, and since he was a very successful huntsman, quite a few Army wives learned to cook wild boar! (I don't know that his wife ever did, but most of the rest of us mastered the art.)

To perform this feat, you again marinate the meat for 2-4 days and you can use just the wine marinade described before if you wish, or you can "beef it up" by adding a bottle or two of hot catsup diluted with wine, water, tomato juice or any combination thereof.

When you are ready to cook it, add a twenty ounce bag of those new little frozen whole onions, and a can or two of mushroom stems and pieces together with the juice in the cans. Simmer this, covered, for an hour or so and then, depending on the number to be served and the heartiness of their appetites, add a combination of parboiled kidney, white and butter beans. Cover again and continue cooking at a slow simmer or in the oven until the meat falls apart at the prodding of a fork.

French bread is the classic go-together, but some nice hot chunks of corn bread will mop up all that good tomatoey sauce very adequately.

Should you want to increase the amount of sauce, tomato paste thinned with the liquids already mentioned will do the job and should be used to thicken the sauce if thickening is required. No flour or roux is used in a cassoulet. Always be sure to taste and correct the seasoning if necessary before serving. That applies to this or any other dish.

The Unwelcome Stork

By MATTHEW C. PERRY
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THE white stork, the traditional baby-deliverer for humans, is becoming less welcome in many areas of the world. Although at one time large families were considered an asset, a growing population problem has made large families undesirable in many ways. The population increase has produced more mouths to feed while the resources available (including food) have been steadily decreasing. At present half the people in the world are undernourished or malnourished. Dr. Jean Mayer, President Nixon's special consultant on nutrition, recently estimated that between 10 million and 20 million people in the United States are badly fed. If the present trend continues, and it appears that it will, starvation, an unpleasant subject, will become commonplace. Unrestrained warfare and the further misuse and pollution of our environment will accompany overpopulation.

Overpopulation, or high population density, is basically due to a birth rate that exceeds the death rate. Medical science has made tremendous progress in allowing more people to grow up and live longer. However, by his own well-doing in reducing the death rate man has disturbed the biological balance on the earth. Unfortunately, the countries with the greatest rate of increase are the undeveloped countries of the world. These are the countries least well prepared to feed the increasing number of people.

In undeveloped countries the population is doubling every 20 to 35 years whereas in developed countries the doubling rate ranges from 50 to 200 years. This means that the undeveloped countries will receive the brunt of the consequences of over-population. Most of them are already experiencing some effects. Man's increasing population has not seriously considered that the finite resources of the world cannot support an infinite population. Each year the resources available per capita decrease while the population increases at a staggering rate.

Many problems now confronting the United States can be directly related to the population increase within our country and in the world. Rapidly noticeable problems like traffic jams and overcrowded campsites are small in comparison to the pollution of our environment and unrest in the world. The growing populations of the world have required and will continue to require an increased production of food. Agricultural practices have been intensified in an attempt to meet this challenge. Pesticides and herbicides have been extensively used as an aid to increase food production. These chemicals, however, have slowly and almost unnoticeably been polluting our environment to the extent that certain wildlife species have been extirpated from some areas and might in the near future become extinct. Alexander Sprunt, IV, research director of the National Audubon Society, recently stated at the annual meeting of the Society, "unless we ban DDT, the American eagle will become extinct." Dr. Sprunt also pointed out that pesticides have eliminated the peregrine falcon as a breeding bird in the eastern United States. Residues of DDT can cause a hormone induction in certain birds which upsets calcium metabolism. Eggshells too thin to protect the embryos are the result of this man-controlled disturbance. Recently the ultimate was discovered by Audubon researchers: an eagle egg with no shell, just a membrane. Fish kills from pesticides are likely to become more common in the U.S. each year. The recent loss of an estimated 40 million fish in the Rhine River should clearly demonstrate the magnitude and speed that these deadly chemicals can affect our own fish resources. Although Rachel Carson warned the public of the dangers from these chemicals in 1963 in her best seller, *Silent Spring*, their use has increased considerably.

Pollution has also occurred in the air we breathe due to an increasing number of automobiles and factories to accommodate our increasing population. In some cities there has been an increase in certain diseases directly related to polluted air. Dr. Paul R. Ehrlich in *The Population Bomb* stated that cigarette smokers from smoggy St. Louis had four times as much emphysema as cigarette smokers from relatively smog-free Winnipeg, Canada.

Not only is the human environment becoming rapidly polluted as man strives to feed the masses, but he is sadly learning that there are less and less areas where he can enjoy nature without being shoulder to shoulder with his fellowmen. The standard of quality of the environment to which we are accustomed will undoubtedly decrease in the future and may be a greater threat to America than either starvation or poison. Inevitably each person will have to sacrifice some of his rights and pleasures to accommodate the larger population. Standing room only signs will become more common.

Although the population explosion is easy for anyone familiar with basic mathematics to understand, solving the problem is more difficult. There are religious, cultural, social, and political overtones that hinder appropriate action. The impressive technological advances being made daily give many people the false impression that the overpopulation and food problems of the world will be solved by scientists. Farming the oceans, colonizing another planet, and cultivating the forests, deserts and jungles have been suggested by some as possible solutions to the problem. All of these, however, are highly improbable to help us in the near future. There is no time and the net costs are too great. The most sensible approach to the problem is to create a zero population increase or to reduce the population by controlling the birth rate in the U.S. and assisting other countries in birth control.

No family need be denied the right to have healthy children if they face their responsibilities now before it is too late. These responsibilities are for each American, as a minimum effort, to become concerned about the problem and then to act in a manner most suitable to their situation. Each person can read all he can about the problem, set a good example, and inform others, especially politicians and church leaders, that he is sincerely concerned. The alternatives seem to be that if the population continues unchecked, our children, grandchildren or possibly ourselves will be faced with self-inflicted poisoning or starvation. They will live in a time of increasing resource abuse. The white stork will remain welcome with proper action on the part now of a majority to at least equalize the birth and death rates of the population.

VIRGINIA WILDLIFE ☆ ☆ ☆ ☆

CONSERVATIONGRAM

Commission Activities and Late Wildlife News . . . At A Glance

15 1/4 MILLION FISH DIE FROM POLLUTION IN 1968. At least 15,236,000 fish succumbed to pollution during 1968, according to the Federal Water Pollution Control Administration. In Virginia, 336,759 fish were reported killed, ranking the state 7th in the nation in terms of fish reported killed and 5th in the number of incidents where pollution killed fish. The quality of the state's reporting service and the number of fish present near pollution sources do have some bearing on the magnitude of these statistics, however.

Municipal pollution primarily from improperly or inadequately treated sewage killed the greatest number of fish followed closely by kills from various types of industrial pollution. Transportation accidents eased into third place as fish killers with rail and pipeline accidents the prime offenders. Losses from agricultural operations declined some 75% from the previous year with crop spraying activities taking the greatest toll of fish.

In-plant spills of toxic chemicals which flowed into floor drains and then into nearby water courses, were common industrial accidents causing fish kills as was the rupture or washing out of holding basins. Malfunctions and careless handling of chemicals used in municipal water and sewage systems caused a number of losses. In most cases, charges were brought against offending industries to recover damages and replace fish. A number of private and public fish hatcheries were affected by contaminated waters.

STATE WILDLIFE WORKERS BAND 4,367 DUCKS. Virginia Game Commission personnel banded 4,367 ducks and 144 geese as part of a cooperative project with the U.S. Fish and Wildlife Service. Federal workers banded an additional 278 geese and 1,068 ducks on National Wildlife Refuges in Virginia.

Prior to last hunting season 68 wood ducks were trapped and banded in Page County. The remainder of the birds were banded after the waterfowl season at the Game Commission's Elm Hill, Hog Island, Pocahontas-Trojan and Saxis areas and at Westmoreland State Park. Canvasback and green-winged teal were the most numerous, each accounting for more than 1,150 of the total. Over 900 scaup and 635 mallards were also included. The birds were captured in wire traps and cannon nets. State wildlife research workers plan to continue banding efforts this fall and winter.

PAPERS PRESENTED AT ALABAMA CONFERENCE. Three biologists from the Commission of Game and Inland Fisheries presented papers during the annual meeting of the Southeastern Association of Game and Fish Commissioners held in Mobile, Alabama. The association represents Game and Fish organizations in 14 states and is the body which serves as a clearing house for the exchange of ideas concerning wildlife management and research techniques.

Raymond V. Corning, Warm Water Supervising Fish Biologist from Walkerton, Virginia, presented a paper entitled "Water Fluctuation, a Detrimental Influence on Trout Streams." The information and findings were compiled as the result of a three-year water quality study on three trout streams.

The second paper was the result of a joint effort by Robert E. Wollitz, Fish Research Biologist, and John H. Jessee, Research Biologist Assistant, both of whom are headquartered at the Marion Fish Cultural Station in Virginia. Title of their paper was "Notes On The Trout Fishery of Hidden Valley Lake, a Cold Water Impoundment in Southwest Virginia."

The lake studied, Hidden Valley, is located in a high mountain valley with an elevation of approximately 3,600 feet above sea level.

One of the unique findings in this report describes the success achieved in the prevention of ice formation on the lake during the winter through the use of aeration systems.

Rediscover C

A FEW casts outside the metropolitan Roanoke area is Carvins Cove, a deep and clear 630 acre impoundment nestled in a pocket surrounded by rolling, tranquil mountains. Shove off from the docking area and you are suddenly swallowed up in a wild little world all you own where you have a hard time believing that a mass of humanity lives just several hollows away.

Take a look at the state fish record book and you'll notice that Carvins Cove ranks high among places that produce trophy bass and trout. You even might be led to believe that the cove is a fishing hotspot, but you'd be wrong. There are anglers living within a short drive of the impoundment who long ago have written it off as an old Scrooge because it can be so stingy giving up its fish.

But for a few fishermen, the cove is a challenge. They take the time to learn its secrets, they court it often, and they are rewarded—occasionally—with the kind of lunker you hang over your fireplace. What's most interesting, the fishing at Carvins Cove has improved considerably recently, and we'll tell you why.

First, however, let's take a tour around this lake, which is the City of Roanoke's water supply, and examine some of the cove fishermen. There's Fred Pugh, a bass fishing artist, casting a black jig with a black plastic worm attached to the hook, sending it to a productive looking rocky point up the lake. Down the lake are Bob and Bill Hale, brothers, trolling flatfish for trout. Anchored along the bank, Bob DeHart and Bob Cromer are dunking tiny jigs for crappie. Everyone is having luck.

Pugh, alone in his 12-foot aluminum boat, casts his jig-and-worm combination near a protruding stump. He allows the wiggling lure to plummet straight down on a limp line. Using the tip of his rod, he bounces the offering along the bottom, feeling it hug the depressions and climb over rocks, down where the big bass live. The lure doesn't go far. A big largemouth gulps it up, turns slowly, then swims away.

A few days earlier, Pugh and Dick Patton, his son-in-law, landed more than 30 pounds of bass at the cove, including 6½ and 5½ pounders. But the way Pugh's rod was bent and the way his reel was surrendering line, no one had to tell him this was a bigger and stronger bass. It felt something like the ten-pounder he landed near the same area several springs earlier.

He had his hands full, trying to turn the powerful fish and keep it away from underwater obstructions. Soon, he had it up in his oversized net. It was a deep-bodied largemouth weighing eight pounds.

Fred Pugh ties bucktail jig, a good lure for the Cove.

Some of the fat crappie Carvins Cove produces.

The Hale brothers, trolling flatfish, weighted with sinkers six feet ahead of the lure, were working their offerings slowly and deeply in the greenish water so they would reach the basement part of the reservoir where trout hang out. They were catching sparkling browns 10 to 15 inches in length.

Most cove trout caught run about that size, but some reach giant proportion—four to eight pounds. The big ones are smart, and difficult to catch. The past spring, David Caldwell landed one weighing 7 pounds, 13 ounces.

The Commission of Game and Inland Fisheries stocks fingerling trout each winter at the rate of 10 per acre. The young fish grow rapidly and colorful in their new habitat, soon waxing wise and becoming respectable, native-like scrappers.

Not far from the Hales, Bob DeHart and Bob Cromer

RVINS COVE

By BILL COCHRAN
Roanoke

found what they were looking for—jumbo-sized crappie, a whopping 12 inches and longer. Unknown to most fishermen, the cove produces some of the nicest crappie taken anywhere in the state, but few can find them or know how to catch them.

The two Bobs located them in a brush bed. To catch the big, finicky fish, they had to use skimpy two-pound line and cast ultralight bucktail jigs just to the right place and right depth.

Bass, trout and crappie—a typical day at Carvins Cove? Hardly. Anyone who has ever fished the cove knows that it is super-sensitive and unpredictable. One day it yields heavy strings of fish; the next few weeks it is as sterile of production as a bath tub. It is more famine than feast.

Yet, the cove stands as a challenge to a solid number of fishermen, because they know it holds big fish, and what's more, it shows signs of producing some of its best angling yet. There are three basic ways the cove is improving.

First, cove fishermen aren't overly harassed by speedboats and water skiers. Water skiing is illegal, and most of the big boats have been moved to nearby 20,000 acre Smith Mountain Reservoir, a newer impoundment. As a result, the cove has grown quiet and tranquil. Suddenly, it seems almost like some wild, secluded lake hidden in the wilds of the northwoods. Indeed, there is much natural beauty to it.

Secondly, fishing is improving because a population of shad has been established successfully, and these small, forage fish offer wholesome food for bass, trout and panfish. Before, the cove did not produce large supplies of food for game fish.

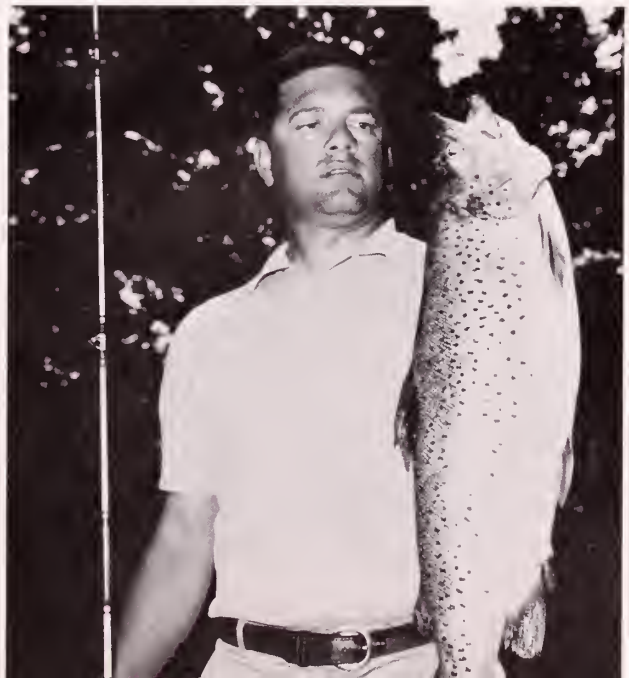
Thirdly, the cove is blessed with a more stable water level and a richer quality of water for fish since a tunnel diverting water from nearby Tinker Creek was completed in 1966. It is designed to add about five million gallons of water daily to the lake, and the extra flow is proving to be of a quality in which fish do well.

As a result of all this, fishermen are rediscovering Carvins Cove. The impoundment is owned by the City of Roanoke. There is a $1.50 daily boat launching fee for those who do not buy an annual launching permit set according to the horsepower of their outboard engine. There are a few boats available for rent, but most anglers bring their own. On a hillside next to the launching ramps is a free picnic area. There is no camping. The cove is closed to all activities each evening at 10 p.m.

Spring—the first two or three weeks of April, especially—is the best time to fish the cove for bass. Good bass fishing is also enjoyed occasionally in the fall and early winter. Trout and crappie fishing is also best spring and fall.

But before someone rushes out to Carvins Cove in hopes of slaying large numbers of fish, let it be said that the impoundment is not an easy place to fish. For those who like to angle for big bass and trout, however, it stands as a glittering challenge.

Fred's deep bodied eight pound largemouth bass, and David Caldwell's seven pound thirteen ounce brown trout.



BIRD - BRAINED

By KATHERINE W. MOSELEY
Rixeyville

L. L. Rue III photos

IF a person is said to be "bird-brained," it is meant as a belittling wisecrack concerning intelligence. Birds are, indeed, definitely lacking in brains but somehow through the ages experience has developed a kind of wisdom.

Nature fashioned most birds for a life of flight which demanded light and strong skeltons without an extra feature that could add weight. The naked head of a bird seems all eyeballs and beak. The tiny brain is encased in a small skull to give room for the eyes. Superb eyesight is the bird's most valuable asset. In most species the eyes are at the sides of the head. The side position gives each eye a greater spread of monocular vision. Looking straight ahead where the two fields of monocular vision overlap, the birds have binocular vision and the keenest eyes in nature.

Next to sight, the sensitive hearing of birds is their second valuable trait. Unlike our ears, theirs have no outstanding position to collect sound. The eardrum is convex with a slender bone to transmit vibrations to the fluid of the inner ear. It may be for this reason that birds are blessed with acute hearing and are aware of sounds that humans miss. There is some question as to a bird's sense of smell with the general belief that birds do have the power of scent but are not dependent on it. The beak of a bird is its sense of touch; the hand, the fingers, the tool for building, the nutcracker, the weapon for defense, as well as its means of communication.

Birds are creatures of the senses, following the inherited, untaught wisdom of their ancestors. Quite often we, as humans, see birds exhibit impulses of self-assertion, personality and something that at times passes as intelligence beyond the limits of the so-called "bird-brain."

For instance: Every summer we hang a tube of sugar-water sirup on a post near a dogwood tree and another on an oak tree for the ruby-throated hummingbirds. One year in late March we were startled to see a male hummer hurl himself against a window of the room where we were. He flew off and came back to bang against the windowpane again. It was an obvious demand for attention and food. My husband hastily found the bottles and filled them with sirup and hung them in their rightful places with the little voyager almost riding his head. When the tubes were hung the bird fed hungrily.

Later a female hummer arrived and soon another pair. The battles began. Shortly one male disappeared either killed by the aggressive one or driven away. The two females stayed with the victor who hated them both. He allowed neither around either tube of food and flew a constant patrol or perched in the dogwood tree to spy from under cover. As the summer wore on we noticed a pattern to the three birds' behavior. One female would approach a tube and the male dive-bombed her with shrill squeaks and she flew away with him in hot pursuit. Immediately the second female would show up to eat her fill. She disappeared until the male was back. then she approached the tube again only to be driven away while the other female had her chance to eat. Undoubtedly the two females took turns distracting the little despot so the other could eat. Female strategy or intelligence?

Spring comes for us when the bluebirds arrive. My husband was on the patio when the first one of the season flew almost into his face and spoke, "Tru-a-ly." He said it was as eloquent a home-coming greeting as he'd ever been given. At Christmas we had been given a martin box which we

felt was nice but useless as our land is too wooded for martins and we had never seen one. Anyhow, he mounted the martin house on a high pole perhaps for wrens or even the flying squirrels. Instead, a couple of bluebirds inspected the other bluebird houses on the place and chose the brand-new high-rise apartment building wherein they raised their noisy family. During brooding time and feeding-of-the-young time the father closed the day by singing from the low railed porch of the house.

Quail are plentiful in our woods and seem unafraid to scratch for the grain that is always under the feeders even if we are near. This summer we were in the front yard with my visiting sister when we noticed a pair meandering up from the woods below the house. Completely at ease they walked almost to us, and with no sign of fear they calmly took to their wings to fly a detour around us to land easily under the feeders and start eating.

Friends in Culpeper, Virginia, have a bluebird house mounted on the post that holds the clothesline. Bluebirds like people and the use of the clothesline never interfered with their use of the house until this year when a pair of Carolina wrens took the house first. Of course the wrens brought in straw and twigs to fashion their own kind of nest. Our friend was fascinated one day by the problem of the male who had a twig in his beak too long to go into the small hole crosswise. The bird would back off on the perch and try again, the twig still too long. Finally he, using beak and claws, turned the twig lengthwise and poked it right in. Birds have no intelligence?

Another friend who lives in an apartment house in the city is a slave to a mockingbird. She feeds raisins to him from her window sill. If she leaves the apartment house to catch a bus, to visit, to sit on the lawn, she is followed by the scolding mockingbird who tells her that she belongs in her own place behind the window. Only when she is there do his feathers come down and his voice softens.

We visited in Mississippi this summer and witnessed an incredible bit of bird-life. The brown thrashers had nested in a tree close by the garage and were a joy to my niece and her two little girls. There was a day of high winds and the nest was blown from the tree to the ground. They rushed out to find the nest intact with three naked, infant birds inside the nest and a pair of distraught thrasher parents overhead. As they decided what to do a cat appeared and grabbed one baby. So they snatched up the nest with the two left, placed it in a wire bird cage, fastened the door of the cage open, and hung it under the overhang of the garage. They stood aside to watch. The parents were still flying wildly about but located the cage. Parental love, courage and uncommon sense forced those large parents to gather food and squeeze one at a time through the small door to fill the gaping mouths. My husband made a picture, which proved the fact, but did justice to neither the birds nor the photographer.

At our place in the country a crude wind-vane is mounted on a pole from the highest fence. It is so sensitive in balance that the slightest movement of air turns the arrow-headed shaft around the axle. Since it is seldom still the birds ignore it. That is, all except one titmouse who landed as it turned and the bird flew away startled. Then the titmouse came back to investigate and perched again on the arrow. The bird was so light that the arrow turned with the swinging of the wind. The titmouse stayed for the ride.

It is a mistake to try to interpret a bird's behavior according to human standards, but that titmouse gave every indication of sheer exhilaration in the motion with no effort of its own wings and no expense of energy. It reminded me of the joyous excitement of a small child on a carefree merry-go-round. At any rate, on nearly every windy day a titmouse rides the wind-vane!

Many years ago when we lived in Biloxi, Mississippi, there was a pigeon who daily rode the Louisville and Nashville trains from Ocean Springs to Biloxi. How this started we have no idea. Shortly before a train from the east was due in Biloxi the pigeon took off flying from the depot toward the east above the railroad tracks. About half an hour later when the train pulled into the Biloxi depot the pigeon sailed from the Pullman car roof for the cupola on the depot, to the delight of the assembled bird-watchers. The pigeon lingered about the station until nearly time for another train from Mobile to be coming through, and away he flew to the east to meet it and arrive again at the depot with all the aplomb of a visiting dignitary. Strangely, the bird was never known to fly west towards New Orleans and come back to Biloxi from that direction.

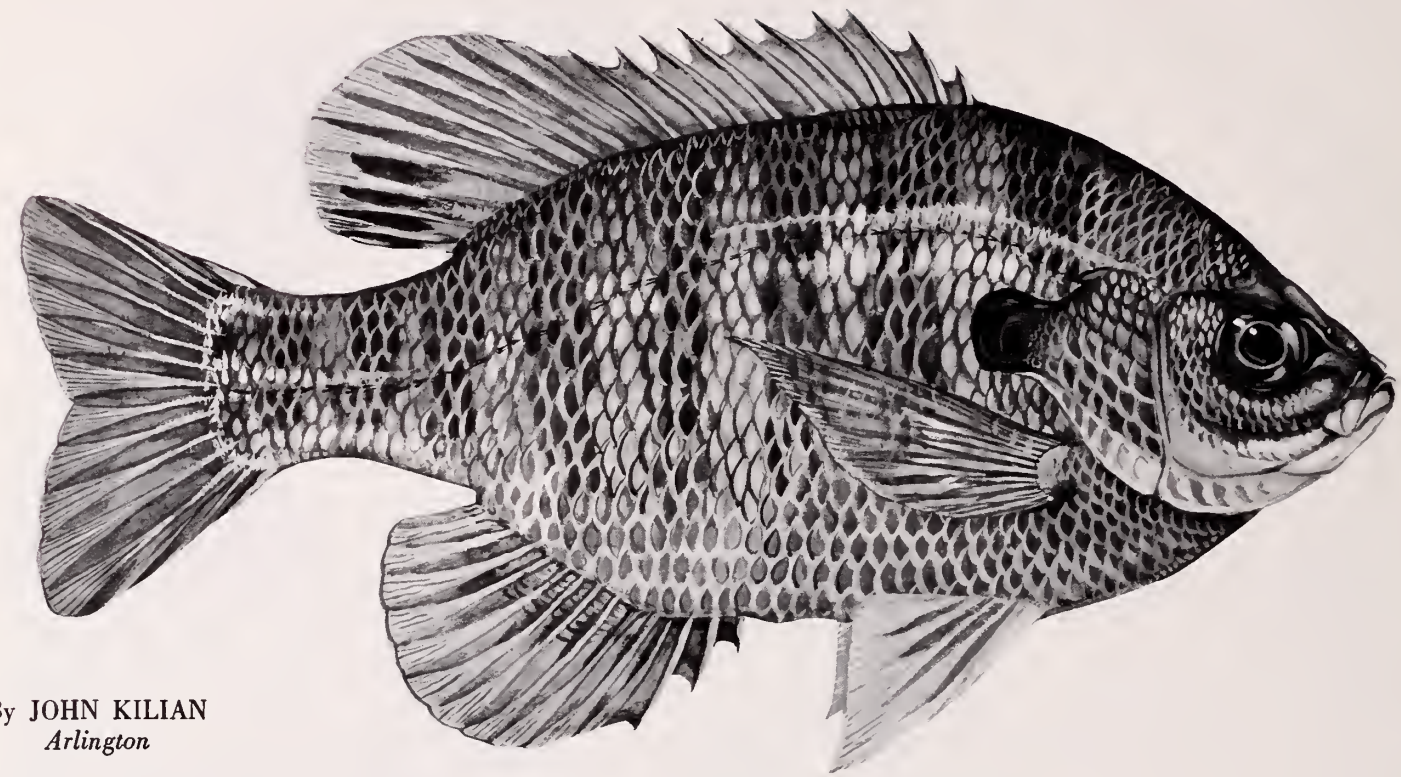
It is true that birds have limited intelligence but birds build nests, that range from rough piles of sticks to perfect architectural gems, using only beaks and claws.

Birds sing, but their vocal organ is the syrinx at the lower end of the windpipe. Humans and animals have voices produced by vocal cords stretched on cartilages of the larynx at the upper end of the windpipe. Man may tape-record the lyrical sonnets of songbirds, but he cannot compose nor sing the song.

Man circles the globe by plane, car, ship and train with maps, a compass, sextants and radar instruments to pilot the way. Yet migrating birds darken the skies on journeys to far lands, and no one knows for sure how they find their way or how they know when and where to return.

Ornithologists insist that birds are creatures of instinct, and the whole pattern of their lives is attuned in advance by heredity. They have no power of reasoning as we understand it. Man, who considers himself a mental giant, could easily be put to shame if the bird-size brain was exactly the size of his human brain.

MONSTER BLUEGILLS of Northern Virginia



By JOHN KILIAN
Arlington

POP Crizzley was a stocky, rough-looking, good-natured, quiet little man who, after retiring, had saved enough money to buy a cabin on the Bull Run Reservoir in Northern Virginia, also called Occoquan. Pop had been an auto mechanic in Manassas, a good one. He loved to fish and he used to fish Occoquan every chance he got, as often as he could. He knew it and the fish in it thoroughly. When he retired, Pop bought a cabin above the marina and fixed it up, adding a screen porch and a dock at the water's edge. Then he got a job as a part-time ranger with the regional park authority at Occoquan. I think they benefited as much by having such a knowledgable man in their service as Pop did by combining work with pleasure and earning pocket money too.

One day, talking with Pop, I complained that in our part of the country the average fresh-water fisherman didn't catch many big game fish. Occoquan was my case in point. Spring had just ended and I had done lousy there. I had worked the whole shoreline—fly-rodding with poppers and casting with ultra-light spinning gear—and I had dropped a minnow or a plastic worm or a jig into every brushpile and over every rocky ledge between the marina and Petrola's—the whole lake practically. I put emphasis behind my complaint:

"Pop, I'm going to Canada or somewhere to get some big fish," I said. "There's nothing in this lake over bluegill size except mud turtles anymore."

Pop looked surprised. Then he got that serious look he gets in poker games when you can't tell what he's holding.

"Well, now, I've seen some big fish come out of this lake, and recently, too," he said.

"Carp, I bet, Pop," I said with disgust.

Pop said no, they weren't carp.

"Catfish," I said. Catfish were as good as carp to me at that point.

But Pop shook his head.

"Bass, Pop?" I began to look surprised.

Pop said: "Bluegills. Big bluegills." He said: "One was the biggest bluegill I ever saw," emphasizing big as if we were talking about 20-pound bluegills.

"This lake's full of them, but your trouble is you're not fishing for them right. You keep using small bait—poppers and spinning lures and worms. You've got to use bigger bait. These fish want something big to eat," Pop said.

He said: "One day when I got tired of catching small fish, just like you, I tied on the biggest bluegill lure I had, to see what would happen."

He said: "I began trolling it behind lead weights in a shallow cove where I had been catching them on a fly rod."

He said: "Something grabbed the lure and bent the rod double."

He said: "It swam round and round the boat in bigger and bigger circles, cutting a furrow through the water and stirring up the mud on the bottom."

He said: "It kept taking line and finally it swung out of the cove and up the lake, and before I could push my throttle into high it took all the line off my reel and I saw the knot at the end go sailing upstream in circles behind a furrow that looked like a truck tire moving underwater."

He said: "Finally the furrow and the line and the knot went out of sight around a bend."

He looked me over with immense satisfaction.

I said: "Pop, how'd you know it was a bluegill?"

"I found him later lying up on a bank," Pop said. "He had tried to eat a bear but both of them lay there dead."

When Pop smiled I thought it was at the story, but it was because of something else he remembered:

"I got my favorite bluegill lure back, too," he said.

Wild Persimmons

By EILEEN LAMBERT
Luray

SUMAC was flaming and the yard full of migrating flickers when we settled down in Virginia after many years in the West. To my delight, my husband pointed out persimmon trees in the second-growth forest on our sixty-five acres.

I hadn't tasted a wild persimmon since my early teens, and the fruit was already the subdued orange of a robin's breast, too tantalizing to resist, so I shrugged caution aside. Just one tiny taste, and my mouth drew up like that of a pouting two-year-old. "No sense letting a good pucker go to waste," my husband said, laughing. He gave me a big kiss.

"I guess it was a distorted memory." I said, trying to grin. "They're certainly not my favorite fruit!"

But old memories are persistent, and inside two weeks I was eating those words along with copious quantities of Virginia persimmons.

People who have sampled these tricky, plum-sized morsels tend to have strong feelings about them. If you've tried unready fruit(perhaps been puckered through the puckishness so common among persimmon addicts), you'll probably resist trying again. If your experience has been with mediocre fruit (it can be simply blah), you won't understand what we connoisseurs get excited about.

The fact is there are not only times to taste and times to turn away, but there are persimmons—and persimmons. The wild persimmon is never as large or as beautiful as the lush Japanese type, but I wouldn't swap one of our messy mouthfuls from a favorite tree for a dozen of their big, exotic cousins. We've located trees that consistently produce gourmet fare—and others that even the wild creatures avoid, or visit only in times of near-starvation. Each tree produces its own brand. Some trees always have large fruit, others small—but size is no indicator of flavor. Some brands have lots of seeds; others, only a few. Some ripen early, beginning in August; others delay until December. You might sample here and there—too soon, too dried, wrong tree, and so on—before you discover how persimmons should taste, but once you know, you've acquired a life-time addiction. My most valuable hint—they're best when they're grayed-orange and so soft and messy you need to wash after indulging.

The appeal of persimmons isn't merely their unique flavor. One extra—you don't find them in stores, you go out in the country after them, seeing, hearing, smelling, feeling and finally tasting the very essence of the season—if you're lucky. They're the maraschino on your autumn sundae.

Another extra—they're woven into our heritage, as American as the Thanksgiving turkey. Captain John Smith tried them near Jamestown, Virginia, and wrote, "If it be not ripe, it will draw a man's mouth awrie with much torment." But the settlers persisted, and those inventive housewives soon found ways to add them to family meals. I have a recipe for baked persimmon pudding reputedly handed down from colonial times. The fragrant aroma of that pudding fresh from the oven on a nippy day in late November conjures up for me visions of log cabins in wilderness clearings.

Still another extra—the challenge of finding the best at their best time and avoiding the puckery (unless for initiating a novice). Some persimmons ripen early, contrary to the superstition that only a severe frost makes them edible, so I run the risk and, despite occasional astringent error, enjoy the first fruits. By now, for me, it's an educated gamble. I watch for the seeds in wild animal droppings and then search for slightly shriveled, soft-to-the-touch fruits, preferably windfalls. I've learned the hard way to resist those that are firm and a lovely bright orange color.

Persimmons stir memories in many Easterners and Midwesterners, helping to explain the restlessness we feel when we've been transplanted. I enjoyed living in California, Nevada and Alaska but suffered a malady every autumn that was worse than spring fever. It occurred regularly when frost was painting the eastern forests, and it sent me questing in strange places for an elusive something I never found.

'Simmons remind me of childhood in Missouri—going out along the rivers with my folks in Indian summer, hunting nuts and these autumn fruits. And my first squeamishness when Granddad picked up a wrinkled little ball from dry grass and fallen leaves and invited me to eat it. He was such a tease, and I was truly from Missouri, so I had to watch him eat a couple with satisfying, lip-smacking sounds before I got my courage up. Then I couldn't find enough. They're part of my girlhood, the heady fragrance of autumn, and escape from the city with a carload of friends on Sunday afternoons.

Commission photo by Kesteloo

Persimmon trees, like many other sources of fond memories, are frequently lost to spreading suburbs and highway projects, and dairymen often weed them from pastures because the flavor, so pleasant in the fruit, fails to improve the milk. But 'simmon trees are often among the first to grow on land reverting to forest, and you can still find them along rural roads and fencerows, in fields and woodlands, from southern Florida to Connecticut, west to Iowa, and down to the Texas panhandle. They grow under such a wide range of conditions, perhaps they could be (or have been?) introduced into parts of the West.

The trees can be handsome if they have growing room. They have rich, dark-green leaves, semi-tropical style, four to six inches long and two to three inches wide, leathery and shiny on top and usually rather droopy. The trees don't

grow very fast and may take more than a century to reach maximum size, about a hundred feet tall with a two-foot diameter. Smaller trees are much more common and easier to shake fruit out of, and one that produces gourmet tidbits, not a hundred feet from our house, couldn't be over twenty years old.

Others of varying sizes and ages grow along our primitive road and are a movable feast as we walk to our rural mailbox a mile away. We goofed, I guess, in introducing them to our dog, Sourdough, who usually accompanies us. We would shake some down and that rascal would nose them or lick them, then let them lie. This exasperated us—if he was going to mess them up, we felt he should eat them. So one day my husband held him while I forced one into his mouth and made him eat it. From that time on he's been an enthusiast, running ahead for the windfalls, making us race to get our share. He's an energetic tail-wagger when we're finding more than he is, and sometimes he thus talks us into dividing three ways.

Another name for the tree is Possumwood, and many a 'coon or 'possum hunt has wound up with the dogs barking at the bottom of a big 'simmon tree. Persimmons have long been the handful of nourishment that wards off starvation when a man or boy doesn't know when to come in from the hunt. They serve me as an excuse when I don't want to admit I'm tired on our longer hikes. And they beeome an adventure when we realize we're sharing with a multitude of wild creatures.

We've watched squirrels nimbly harvesting them in tall trees. We've flushed yellow-bellied sapsuckers out of 'simmon trees—unintentionally, as we enjoy watching the birds eat the fruit if we see them first. We often find deer tracks under our favorite trees, and there are signs the cottontails, opossums, raccoons and foxes join in the feast too.

We caught a gourmet trio in action once. Rain had recently fallen and we moved soundlessly on limp leaves, enjoying increased visibility because these fading leaves had changed from a screen to a carpet. We could look across the creek and some distance up the hollow, and I saw a small tree doing a violent hula. We watched through a lacework of twigs as a blackbear cub backed down and casually retrieved the fruit that had fallen. Then we saw another cub up another tree, hanging on with one chubby arm and reaching out with the other. The mother bear, fat and sleek and almost hidden from us by the evergreen leaves of mountain laurel, was diligently searching for dropped fruit in the fallen leaves.

Persimmon trees are natural storehouses. Last winter, when snow was thirty inehes deep, we watched squirrels and various birds perform intricate maneuvers as they found nourishment in fruit still clinging to the treetops. Especially entertaining were the antics of those crow-sized, red-crested pileated woodpeckers. Dried, blackened persimmons hang onto some trees well into spring, providing sustenance for many wild creatures when other fare is scarce.

One picture persists as summing up my feeling for the persimmon. On a perfect day last autumn, in kaleidoscopic light from golden and scarlet leaves both overhead and underfoot, we were sitting on a sunwarmed rock savoring a few sweet and slushy windfalls. My husband nudged me softly and whispered, "We have company." A chipmunk sat on the old stone fence near us, having a similar meal, making a similar mess of himself, and the three of us went on feasting together. Ah, that was serendipity!

Any head worth mounting is worth the little trouble of caring for it.

Care of Mounted Heads

By CHARLES R. LEWIS
Winchester

OF the countless deer heads mounted each year, how many will look like they did when they came home from the taxidermist after ten or twenty years? The answer: very few.

The following tips will help the new deer head owner keep his among those few.

When your deer head arrives, you look at it intrigued, memories of that hunt coming back as clear as if you were there right now standing over your prize.

Now, where shall you put it? There are a few places where it should *not* be put; for example, near an open window where the sun's rays hit, for the hair will tend to fade. A deer head should not be set near a stove or fireplace unless you really plan on cleaning it weekly, because hair on the head absorbs grease and smoke. After a while, without proper care, you have a greasy, dirty head.

Any high place in your den or living room will be a perfect spot for your prized deer head.

The best way of cleaning you deer head is with soap and water. By no means scrub back and forth! You should rub gently with the flow of the hair so the hair will go back into place evenly. When you clean the eyes, be sure not to hit the eyelashes as they break easily.

Mounted heads such as these will always look alive and stay beautiful as long as they get proper care.

Now, what about those prize antlers? After about two or three years, antlers tend to lose their natural gloss. Through years of experience, I have found that if you mix a little turpentine with boiled linseed oil and put a generous amount on the antlers with a rag, then wipe it off quickly with a clean cloth, your antlers will continue to look like they did before.

Follow these few precautions and there will be no reason why your trophy won't always look alive and beautiful.

Newport News *Daily Press* Photo

Virginia game biologist Max Carpenter (third from left) made presentations at Deer Park elementary school to the winners of state big game trophy competition. The winners (standing from left) are: Frank C. Nunnally, Green Bay, Virginia, first in State for 7-8 point deer, 184 1/8 points; Douglas Samons, Alexandria, first in Eastern Regional for 9 point deer and third in state; George Hill (to Carpenter's left), overall State winner for 9-point deer; W. T. Watkins, former Peninsula resident now of Colonial Heights, first place turkey. Kneeling (from left) are Randy Foster, of Concord, first place in State 6-point or less for deer, and Robert Murphy, Jr., of Newport News, first in 7-8 point deer for Virginia Peninsula Sportsmen's Association. Not present but third in 7-8 deer class was C. E. Woodlief of Hampton. There were 53 entries for deer in the three categories. No East bear awards were announced.

BIG GAME TROPHY SHOW

By H. L. GILLAM
Information Officer

GEORGE Hill of Salem, Virginia, took top place in the State Big Game Trophy Contest at Newport News with a Botetourt County buck scoring 231 6/8 points in competion with deer heads from across the state which averaged a little larger than last year. An Ohioan, Charles Davis of Cincinnati, placed second with his Augusta County buck which rated 214 9/16 points. The Eastern Regional winner from Fauquier County entered by Douglas Samons of Alexandria, made third place in state competition with a score of 211 5/8. Two more western deer, a 13 pointer from Augusta County with antlers scoring 208 15/16 entered by Willard Goforth of Staunton, and a Highland County 15 pointer scoring 204 11/16 for Coy Stitlner from Harmon, rounded out the top class.

The winner in the 7 and 8 point class was a Prince Edward County rack with a score of 184 1/8 entered by Frank Nunnally of Green Bay, Virginia. An eastern buck also won the 6 point class with a score of 133 9/16. Randy Foster of Concord bagged the trophy 6 pointer in Appomattox County. Louis Carickhoff of Elkton claimed top honors in the Bow & Arrow Division with a 9 point Rockingham County buck which rated a score of 160 2/8. There were no eastern entries in this class.

Bear competition was exceptionally close with the top bruins separated by only 1/4 point. Vance Presgrave's 405 pound field dressed bear bagged in Page County was ruled the winner with a skull score of 28 4/8. A Wythe County bear, entered by Luke Lambert of Bland, placed a close second with a score of 28 2/8.

As per tradition, next year's state competition will be held in conjunction with the Western Regional Contest in Harrisonburg in mid-October, 1970.

STATE BIG GAME TROPHY WINNERS 1969

DEER

	Class I (9 points or more)	*County of Kill*	*Points*	Score
1.	George Hill, 2361 Mowles Dr., Salem, Va. 24153	Botetourt	14	231 6/8
2.	Charles R. Davis, 5156 W. Kemper Rd., Cincinnati, Ohio 45200	Augusta	14	214 9/16
3.	Douglas Samons, 7311 Piper St., Alexandria, Va. 22300	Fauquier	13	211 5/8
4.	Willard Goforth, 2601 Eston Dr., Staunton, Va. 24401	Augusta	13	208 15/16
5.	Coy Stitler, Harmon, Va.	Highland	15	204 11/16
	Class II (7 and 8 points)			
1.	Frank C. Nunnally, Green Bay, Va. 23942	Prince Edward	8	184 1/8
2.	J. W. Coleman, Route 3, Blackstone, Va. 23824	Nottoway	8	178
3.	Arlie F. Armentrout, Keezletown, Va. 22832	Rockingham	8	177 7/16
4.	C. E. Woodlief, Hampton, Va. 23300	Southampton	8	174 6/8
5.	William Shaver, Rt. 1, Blacksburg, Va. 24060	Montgomery	8	172 1/8
	Class III (6 points or less)			
1.	Randy Foster, Rt. 2, Concord, Va. 24538	Appomattox	6	133 9/16
2.	Paul W. Phillips, Harrisonburg, Va. 22801	Rockingham	6	123
3.	Fred L. Jones Jr., Newport News, Va. 23600	Gloucester	6	114 3/16
4.	Howard L. Painter, Stanley, Va. 22851	Fluvanna	6	110 5/8
5.	Alvin Good, Stanley, Va. 22851	Fluvanna	6	103 15/16
	Class IV (Bow)			
1.	Louis J. Carickhoff, Route 3, Elkton, Va. 22827	Rockingham	9	160 2/8

BEAR

1.	Vance E. Presgrave, 307 N. Hawkville St., Luray Va. 22835	Page	405 (f. dress)	28 4/8
2.	Luke Lambert, Rt. 1, Bland, Va. 24315	Wythe		28 2/8
3.	Darrell Wallace, 250 E. Redwood Lodge, Waynesboro 22980	Augusta	250#	26 1/8
4.	James Wenger, Route 1, Dayton, Va. 22821	Augusta	265#	25 4/8
5.	William E. Blosser, Route 4, Harrisonburg, Va. 22801	Rockingham	152#	23

and rabbits. Black bear are occasionally killed on the area. Fall turkey hunting is not permitted, as this area is the source of live trapped wild turkeys used to extend the range of this bird to other suitably restored habitat elsewhere in the state.

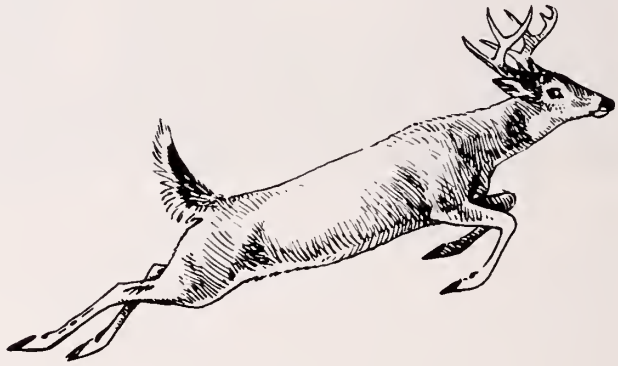
James River Wildlife Management Area. This is one of the most recent acquisitions, located in Nelson County on the north bank of the James River with access via route 626 off route 56, approximately 15 miles southeast of Lovingston. Although the acreage is small the area has good populations of quail, deer, turkeys and rabbits. One of its great assets is 33,000 feet of frontage on the James River, providing public access to this stream for fishing and for waterfowl hunting. During migrations mallards and black ducks utilize this section of the river, while wood ducks nest in the vicinity and are present early in the hunting season.

Powhatan Wildlife Management Area. Only 33 miles west of Richmond off route 60, this area provides dove, quail, rabbit, squirrel, deer and turkey hunting, but hunting pressure is relatively heavy and the annual surplus is removed rather quickly. The area was acquired to test the feasibility of managing relatively small public hunting areas in close proximity to population centers, and as a proving ground for techniques designed to provide multiple recreational opportunities on such areas.

Amelia Wildlife Management Area. Two thousand acres, a third open agricultural land and two thirds young timber, offer good quail, squirrel and rabbit hunting about 11 miles north of Amelia on route 652, just a short distance off route 616. A few deer and turkeys also are present. There are three miles of frontage on the Appomattox River, and waterfowl feeding ponds are being developed. Like the Powhatan Area, Amelia attracts heavy hunting pressure at times, especially during early dove season and the first weeks of general small game hunting. Later in the season pressure is relatively light, and while game has become harder to find, a skillful hunter with a good dog should not come away empty handed.

White Oak Mountain Wildlife Management Area. State routes 649 and 706 pass through this 2,700 acre area in Pittsylvania County and connect with route 832 east of Chatham. Prior to purchase by the Game Commission the area consisted of a number of individual small farms that produced bright tobacco, small grain, corn, hay and pasture. A third of the land is open, in fields ranging in size from 30 acres down to ¼-acre former garden plots, and there are eight ponds on the area. The diversity of vegetative cover makes this area a natural for small game populations.

Fairystone Farms Wildlife Management Area. This 4,800 acre public hunting area, located in the foothills of the Blue Ridge Mountains on the west side of Philpott Reservoir, complements the outdoor recreational opportunities offered by the 3,000 acre reservoir and adjacent Corps of Engineers lands, and the Fairystone State Park, a portion of which is also open to hunting. (Fairystone is one of three State Parks on which the progressive State Division of Parks permits managed hunting under a cooperative agreement with the Game Commission.) Access roads lead into the Fairystone Wildlife Management Area from routes 57, 717, 704, and 687. The area was opened to deer hunting in 1957 following a rapid herd growth from brood stock brought in from Wisconsin ten years earlier. The area has since become noted for 200 pound bucks with trophy racks. Principal game species in addition to deer are turkeys, quail, rabbits and squirrels. The area is largely wooded except for old homesites, and management consists chiefly of forestry practices with emphasis on maintaining optimum deer habitat.



Havens Wildlife Management Area. This is one remnant of a series of game refuges which once was strung out along Virginia's mountains. It has belonged to the Game Commission since 1930, and now serves as a public hunting area. The 5,800 acre tract lies west of Salem on Fort Lewis Mountain. It is rough and steep with no vehicular access, but with access by foot trails leading off route 622 which runs along the base of the mountain. It is best known for its grouse and squirrel hunting, but live trapped wild turkeys released on the area in 1960 have burgeoned into a promising population.

Clinch Mountain Wildlife Management Area. The hunting potential of this 18,000 acre tract in Smyth, Russell, Tazewell and Washington Counties is still to be realized. Grouse are present, and there are bear in the area. But this is one of the areas of restored wildlife habitat in which deer and turkeys have been stocked, and while the potential for these species in the future is great, they require protection during the period of population build-up and the Clinch Mountain Wildlife Management Area therefore is CLOSED TO HUNTING at present. The area features one of the state's finest trout streams, Big Tumbling Creek, on which Virginia's highly popular daily fee, "pay-as-you-go" trout fishing facility has been operated since 1964.

Hidden Valley Wildlife Management Area. This 6,400 acre facility in Washington County boasts a 60 acre managed trout lake. Grouse is the most important game species on the area, but like Clinch Mountain, Hidden Valley has received recent deer and turkey stocking and these species will be added to the hunter's potential bag in the future. In the meantime this area also remains CLOSED TO HUNTING.

There is a great and growing opportunity for public enjoyment of the outdoors and its wildlife resources in Virginia. Don't miss it!

Bird of the Month:

Fox Sparrow

By DR. J. J. MURRAY
Lexington

THE fox sparrow is a widespread species that has been divided by taxonomists into 18 varieties, or subspecies. Most of these races nest in western Canada and Alaska. Some of them have very restricted breeding ranges, for in Alaska and western Canada the type of territory may vary very greatly in short distances.

In Virginia we have the Eastern Fox Sparrow, *Passerella iliaca iliaca*, which nests in the spruce areas of Canada and winters from the Canada border, south to southern Mississippi and central Florida. In Virginia it is uncommon east of the mountains, except that near Washington it is common. It is more common in the mountains, where a few winter at times in the valleys. In Virginia it is found from early October to early May. W. P. Smith found a late bird at Newport News on 14 May 1966.

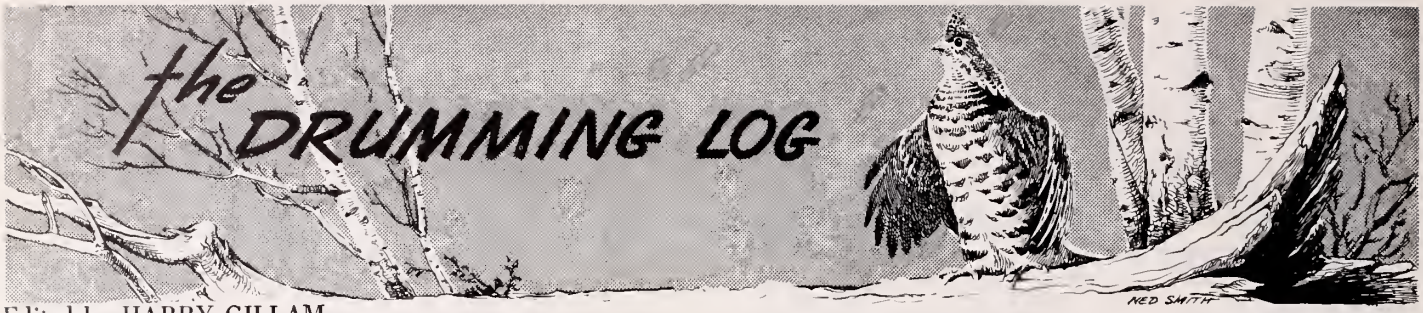
Around 7 inches in length, this is one of our largest sparrows. It gets its name from its reddish (fox-like) color. The bright reddish tail shows clearly in flight. Its breast is very heavily streaked with reddish. All in all, it is one of our most beautiful sparrows.

The male and female are alike. Young birds are like the parents, except that the coloring is less decided. Careless observers may confuse the fox sparrow with the hermit thrush, but the hermit thrush, of course, has spots below rather than streaks.

The song is a lovely one, varying to some extent from bird to bird, but consisting always of sweet whistled notes.

The nest, which the writer has not seen, is said to be a bulky structure, placed on or close to the ground. In it are laid three or four eggs, sometimes five, bluish or greenish, and heavily spotted.

The habits of this bird are definitely beneficial to man's interests. Its food consists mainly of weed seeds in winter and insects in summer. Help to our human economic interests, however, is not the chief reason for the protection of any wild species of animal life. The unique nature of any species is reason enough for not wanting to see it wiped out.



Edited by HARRY GILLAM

Winchester Adds Grouse Volume To Sportsmen's Handbook Series

A beautifully done 104 page book on the *Ruffed Grouse* is the latest addition to the Winchester Library of Sportsmen's Handbooks. As does the rest of the series, the grouse volume contains chapters on life history, management and hunting including tips on how to increase grouse numbers. The book is written in simple down-to-earth language and well illustrated with top-notch photographs. Unusual aspects of grouse life history such as drastic population cycles and crazy flights are explained.

Other books in the series include the cottontail rabbit, the white-tailed deer, the ring-necked pheasant, gray and fox squirrels, the mallard and the elk. The books are sold at cost which amounts to $1 each, including postage. They are certainly the most complete and authoritative sources on these most important game birds and animals available at this price. They may be ordered prepaid from the Conservation Department, Winchester Western, East Alton, Illinois. Also available free are similar books titled *Principles of Game Management, For the Young Hunter,* and *Careers in Wildlife Conservation.*

New "Fishing Tips" Brochure Offered

Last year, thousands of fishermen submitted their favorite "tips" in a nationwide Land-A-Grand sweepstakes sponsored by Newton Line Company, Inc.

Now, several dozen of the most useful and unusual tips have been assembled in a new "Fishing Tips" brochure just released by Newton. A copy of this informative booklet, plus a colorful Bass Shoulder Patch for the fishing jacket or cap, may be obtained by sending 25¢ in coin to Newton Line Co., Inc., Box G, Homer, New York 13077.

Lake Orange Northern

Big northern pike are again creating quite a stir in Commission-owned Lake Orange. This 8.3 pound specimen was taken in late September by Eddie Leach of Gordonsville. It was the 12th legal northern to come from the lake this season.

Striper Stocking Completed

During late July and early August, the Commission of Game and Inland Fisheries stocked 28,400 striped bass three to five inches long and 500 striper-white bass hybrids, reports Supervising Warmwater Fisheries Biologist Raymond Corning. Smith Mountain Lake and Lake Prince in Nansemond County shared the bulk of the fingerling stripers, each receiving about 9,000. An additional 7,700 were stocked in Leesville Reservoir below Smith Mountain and 2,500 went into Earlyville Reservoir in Albemarle County.

Claytor Lake received the white bass-striper hybrids, its second introduction of these unusual fish. The first stocking was made last year and these fish should be getting large enough to begin appearing in fishermen's creels next spring and summer. In other states, they have reached 6 to 8 pounds in two years.

Some 14,000 striped bass are being retained in hatcheries to test their response to artificial feeding. A pelleted feed similar to that used to feed trout in state hatcheries is being used. In addition to observing the nutritional effects, fisheries technicians will be able to decide just how economical it is to raise stripers to larger sizes in hatcheries before release. The fish held for these experiments will also be released later after the desired data is obtained.

Shenandoah Smallmouth

Robert Taylor of Rileyville holds a 4 pound 1½ ounce citation smallmouth taken on the Shenandoah. This was the second citation fish Mr. Taylor managed to land from the same section of the river during October.

Edited by ANN PILCHER

A CHRISTMAS HAPPY

THE DUCK IN THE GUN

New Doubleday Books For Young Readers

"I'll show that duck it can't stop an army," shouts the general in Joy Cowley's delightful new fable entitled *The Duck in the Gun.* For children up to eight; wonderfully pointed satire, full of vitality and humor.

Joan Aiken, 1969 Guardian Award winner for children's fiction, is up to new tricks with recently published *A Necklace of Raindrops.* A necklace that keeps its owner dry in the heaviest rainstorms; a tiger that springs from the pages of a picture book: both are part of the enchanting world created by Miss Aiken's eight lively tales.

Nighttime footsteps of the littlest kitten, a baby snowflake drifting through a misty sky, fog as it comes in over the river, the yawn of the youngest butterfly. Mel Evans has captured life's tiniest sounds and woven them into a collection of short, lovely poems for quiet times, sure to enthrall the liveliest youngster. Ed Young is the watercolor illustrator.

Quantico Camporee

An October weekend Camporee at the Quantico Marine Corps base brought about 700 Prince William County boy scouts together. Approximately 250 boys working on wildlife merit badges attended instruction given by Game Commission Field Educational Services Coordinator Darrell Ferrell, shown above holding antlers. Boy in foreground studies "Animal Tracks" leaflet.

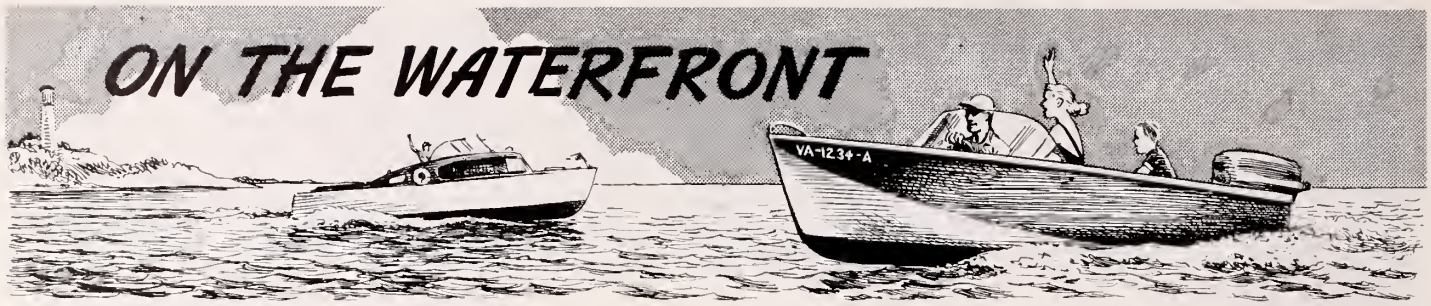
Fall Rodeo—A Williamsburg Jaycee First

Williamsburg's first annual Jaycee Fishing Rodeo, held in late September at the Waller Mill Reservoir, attracted approximately 100 8-12 year old children, and was a complete success. Youngsters catching most fish, largest fish and most different types received rods, reels, line, tackle boxes and a football generously donated by sporting goods and hardware businesses. One marine sales firm loaned fishing gear for children not having their own equipment. Fried chicken, sandwiches, candy, soft drinks, crackers, apples and oranges, also donated by thoughtful businessmen, ensured the rodeo's success.

A Little Girl in Animal Land

Lynette Kellum, 4, of Fredericksburg makes friends with a fawn at the Fredericksburg Agricultural Fair exhibit of the Virginia Game Commission. The infant deer was alive, but turkeys were among several different mounted species shown. Left: a longer look at the exhibit—manned, when photo was taken, by Game Warden J. D. Dedrick and Warden Patrol Leader F. C. Boggs—and the first place State agency award which the display earned.

Fredericksburg *Free Lance-Star* photos by John Massey



Edited by JIM KERRICK

"Rules of the Road" Basic to Safety

In the years since World War II, and particularly in the last ten, there has been a phenomenal increase in the number of pleasure boats on the water and in the number of people taking part in recreational boating.

It would be nice if we could do without regulations, but unfortunately we can't. Basic to safety and common sense on the water are the "rules of the road."

The rules of the road are a broad set of federal regulations that set up a "predictability of action." They are not a set of hard and fast rules, but they do give direction for action, particularly where a threat of collision may exist. They have also been used as a standard for legal judgment in the courts.

Here are a few of the basic rules of the road which will make you a better boatman:

HEAD-ON MEETINGS: When motorboats are approaching one another from opposite or nearly opposite directions, each must pass on the port (left) side of the other. Each boat should alter course to starboard (right).

PASSING TO STARBOARD: When the courses of the two boats are so far to starboard (right) of each other so that they are not in a head-on or nearly head-on position, the boats may pass starboard-to-starboard. In narrow channels, however, and a 300 foot channel has been held to be narrow, motorboats are required to keep to the starboard side of the channel, thus passing port-to-port. At night if you see both the red and green running lights of another craft, you are probably in a head-on position.

CROSSING SITUATION: To distinguish a crossing situation, every vessel approaching you from dead ahead to two points abaft (behind) the starboard beam (right hand side) has the right of way. Another way to say it is when two boats are crossing, to prevent risk of a collision, the vessel which has the other on her own starboard side shall keep out of the other's way. The skipper of the "privileged" boat (the boat with the right of way) not only may hold his course, he must. You, as the "burdened" boat, may alter course to starboard so as to pass behind the other vessel, or you may slow, stop, or reverse, whichever is safest. Generally, motorboats yield the right of way to boats under sail alone, because of the motorboat's greater maneuverability. If, at night, you see the green running light of another vessel, but not its red, you have the right of way. If you see only the red, the other has the right of way. If you can see neither light, and you seem to be gaining, you are probably in an overtaking situation.

OVERTAKING SITUATION: Every boat about to be overtaken is a privileged vessel and has the right of way. The passing boat must keep out of the way until passed and clear, even if it means swinging wide to stay well clear. In no case should the boat being passed alter course so as to cross the bow or crowd on the course of the passing boat. If you are in doubt as to whether you are in a crossing or an overtaken situation, you are required to assume that you are overtaking.

These are some of the basic rules of proper boat handling. They become second nature as a boatman gains knowledge and experience.

Children Can Be An Asset Afloat

There is nothing on earth with more energy than a kid confined in a small place. Whether it is in a car, an airplane, a dentist's chair or a boat, a youngster seems to have an infinite capacity for constant motion.

There are three courses of action open to you as a parent. You can do nothing at the dentist's, and watch the little darling sink his teeth into the doctor's thumb; or in a boat, throw the bait box overboard in desperation. The second solution is to yell a little.

The third solution and the one that will prevent either of the others from happening, is to keep Jimmy or Joanie occupied so that he or she won't feel the urge to squirm, to tap the windshield with a hammer, or to poke your neighbor in the belly to see if it is real. And you'll save a lot of money on bait buckets.

FAMILY FUN

Boating is recreational activity, fun for every member of the family. Since boating is such fun, the attention span of a young child is lengthened considerably.

But you want to have fun too, so you will have to see to it that Jimmy and Joanie don't get into mischief. A family boating outing is a perfect time for constructive fun for children.

Start off by treating the youngsters like grown-ups. Nothing pleases a child more than to be treated as an equal by a parent. Kids are naturally imitative. They'll follow the example you set as a boatman.

Let them see you having fun; they'll want to emulate you. Let them. It's never too early to let the child take the wheel, for example. You'll be there to supervise; but it will be an indescribable thrill for a young boy or girl to steer the boat.

TEACH RULES

Teach your children the basic rules of the road and the common sense rules of safety. These rules, once learned, will be retained. When you give instructions, be sure to explain the reasons behind each rule. Your child will be much more receptive to instruction if he knows "why."

Make a game out of learning the meaning of buoys and markers, or the different types of power and sailboats you see.

When a youngster shares in the fun, he should also share in the work. If you've done the job right, he will look forward to even the most routine chores such as stowing gear properly, and keeping lines shipshape. Launching, shoving-off and docking are areas in which you can assign appropriate responsibilities according to your children's ages. Make a child proud of his competence and he will be anxious to increase his expertise.

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JOHN W. TAYLOR
Virginia Wildlife